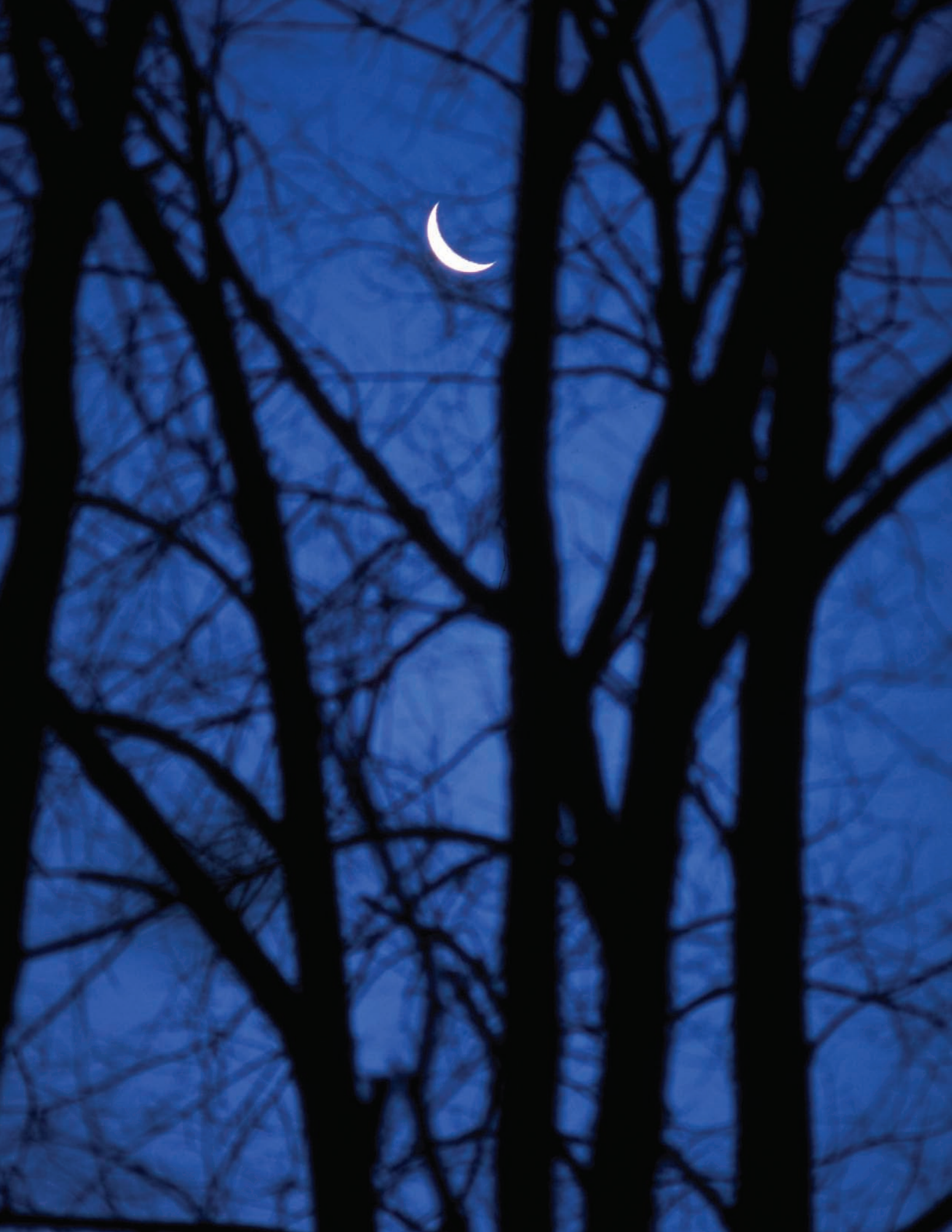

CHAPTER 5

Accessibility and Universal Design

Many issues must be considered when restoring lands and providing for people who use outdoor recreation sites. One of the current requirements for outdoor recreation providers is meeting ADA standards for new and renovated facilities and programs. One of the requests of users is for outdoor recreation providers to exceed ADA standards and address the needs of all user groups. This section deals with universal design – taking accessibility to a higher level to meet the requirements of multiple users in the most cost-efficient manner.

Accessibility and Universal Design Explained

The parks and recreation professionals surveyed for this SCORP were fully aware of the ADA (1990, as amended) and the requirements to make any additions or renovations to their sites and services accessible. There is still confusion when local park and recreation professionals, park boards, and other interested parties assess the accessibility of their programs and facilities. All local and state governments fall under Title II of the ADA. Title II is designed to prevent discrimination on the basis of disability in services, programs and activities provided at state and local levels. While there are no checklists specific to recreation facilities, help for those assessing ADA accessibility is available.

The following are some Internet resources that make assessment of accessibility easier and more cost-effective:

U.S. Access Board:
http://www.access-board.gov
Independent federal agency responsible for developing minimum requirements for accessible design.

The following are guidelines and standards that may be useful.

ADA Accessibility Guidelines (ADAAG):
http://www.access-board.gov/adaag/about/index.htm
Covers the built environment, such as parking lots, accessible routes, entrances, bathrooms and much more.

Revised ADA/ABA Guidelines (ADA/ABA):
http://www.access-board.gov/ada-aba/final.htm
Combination of ADAAG and Uniform Federal Accessibility Standards created for the Architectural Barriers Act of 1968. Updates built environment design specifications and adds recreation facilities, such as playgrounds, boating and fishing facilities, golf courses, and swimming facilities.

Outdoor Developed Areas Final Report (1999):
http://www.access-board.gov/outdoor/outdoor-rec-rpt.htm
Guidelines address accessibility in outdoor recreation facilities, such as trails, camping,facilities, beaches, picnic tables, benches, grills, overlooks and viewing areas.

Center for Universal Design:
http://www.design.ncsu.edu/cud/
Starting point for those who would like to learn more about universal design and how it can cost-effectively improve ADA compliance.

Disability Info.gov:
http://www.disabilityinfo.gov/digov-public/public/DisplayPage.do?parentFolderId=500

Figure 12. ADA-compliant entry doors; left-hand set of doors is manually operated; right- hand set may be manually operated or opened by the switch at the right.

Figure 13. ADA-compliant entry doors with universal design principals applied; doors open automatically and offer no significant barrier to anyone.

Huge one-stop shop for all kinds of links, reports, guidelines and data on accessibility from a wide variety of sources; one of the most comprehensive sets of disability information on the Internet.

National Center on Accessibility:
http://www.ncaonline.org
Home page for a leading recreation accessibility-research and technical-assistance organization; consultation and information services are available.

U.S. Department of Justice ADA Regulations and Technical Assistance Materials:
http://www.usdoj.gov/crt/ada/publicat.htm
Great list of materials available in hard copy or for immediate download, including the "Title II Technical Assistance Manual" (excellent State and local government ADA compliance guide and examples), and "ADA Guide for Small Towns" (cost-effective tips and examples for small local governments).

Checklists

Uniform Federal Accessibility Standards (UFAS) Checklist:
http://www.access-board.gov/ufas/UFAChecklist.txt
Workbook designed to help people survey their facilities for compliance with the UFAS accessibility standards (related to the 1968 Architectural Barriers Act). An older, but helpful reference (not recreation-specific) for those assessing the accessibility of their built facilities.

ADAAG Checklist:
http://www.access-board.gov/adaag/checklist/a16.html
Checklist (not recreation-specific) that is newer than the UFAS and aimed at buildings and facilities.

The Americans with Disabilities Act versus Universal Design

Universal Design (UD) is a design theory with seven principles. It is a way of designing things so they can be used by everyone. The ADA requires new construction or alterations to be accessible to people with disabilities. The difference between the two approaches is adaptation versus inclusion. ADA requires at least adaptation; UD's intent is to make a facility/site/program appealing and usable to all people, regardless of ability or circumstances. A common application of ADA accessibility guidelines is a building entrance that has a wheelchair ramp next to a set of entry stairs, along with one door that opens when a button is pressed (Fig. 12). UD enhances that idea by providing an entrance that uses a gently sloped entry with no stairs and a set of wide, automated doors that uses sensors to open when anyone approaches (Fig. 13). Such a UD entrance could easily be used by someone who uses a wheelchair or is blind or deaf. Implementing UD can be as simple and inexpensive as replacing standard light switches with large rocker switches.

The following is an excerpt from a North Carolina State University Center for Universal Design document. It was copyrighted in 1997 and is reprinted by permission. See Appendix G for the full text with both the principles and guidelines.

UNIVERSAL DESIGN:

The design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.

The authors, a working group of architects, product designers, engineers and environmental design researchers, collaborated to establish the following

Principles of Universal Design to guide a wide range of design disciplines including environments, products, and communications. These seven principles may be applied to evaluate existing designs, guide the design process and educate both designers and consumers about the characteristics of more usable products and environments.

The Principles of Universal Design are presented here, in the following format: name of the principle, intended to be a concise and easily remembered statement of the key concept embodied in the principle; and a definition of the principle: a brief description of the principle's primary directive for design.

PRINCIPLE ONE: Equitable Use

The design is useful and marketable to people with diverse abilities.

PRINCIPLE TWO: Flexibility in Use

The design accommodates a wide range of individual preferences and abilities.

PRINCIPLE THREE: Simple and Intuitive Use

Use of the design is easy to understand, regardless of the user's experience, knowledge, language skills, or current concentration level.

PRINCIPLE FOUR: Perceptible Information

The design communicates necessary information effectively to the user, regardless of ambient conditions or the user's sensory abilities.

PRINCIPLE FIVE: Tolerance for Error

The design minimizes hazards and the adverse consequences of accidental or unintended actions.

PRINCIPLE SIX: Low Physical Effort

The design can be used efficiently and comfortably and with a minimum of fatigue.

PRINCIPLE SEVEN: Size and Space for Approach and Use

Appropriate size and space is provided for approach, reach, manipulation, and use regardless of user's body size, posture, or mobility.

Please note that the Principles of Universal Design address only universally usable design, while the practice of design involves more than consideration for usability. Designers must also incorporate other considerations such as economic, engineering, cultural, gender, and environmental concerns in their design processes. These Principles offer designers guidance to better integrate features that meet the needs of as many users as possible.

"The Principles of Universal Design were conceived and developed by The Center for Universal Design at North Carolina State University. Use or application of the Principles in any form by an individual or organization is separate and distinct from the Principles and does not constitute or imply acceptance or endorsement by The Center for Universal Design of the use or application."

The Principles of Universal Design

should be cited as follows: "The Center for Universal Design (1997). The Principles of Universal Design, Version 2.0. Raleigh, NC: North Carolina State University."

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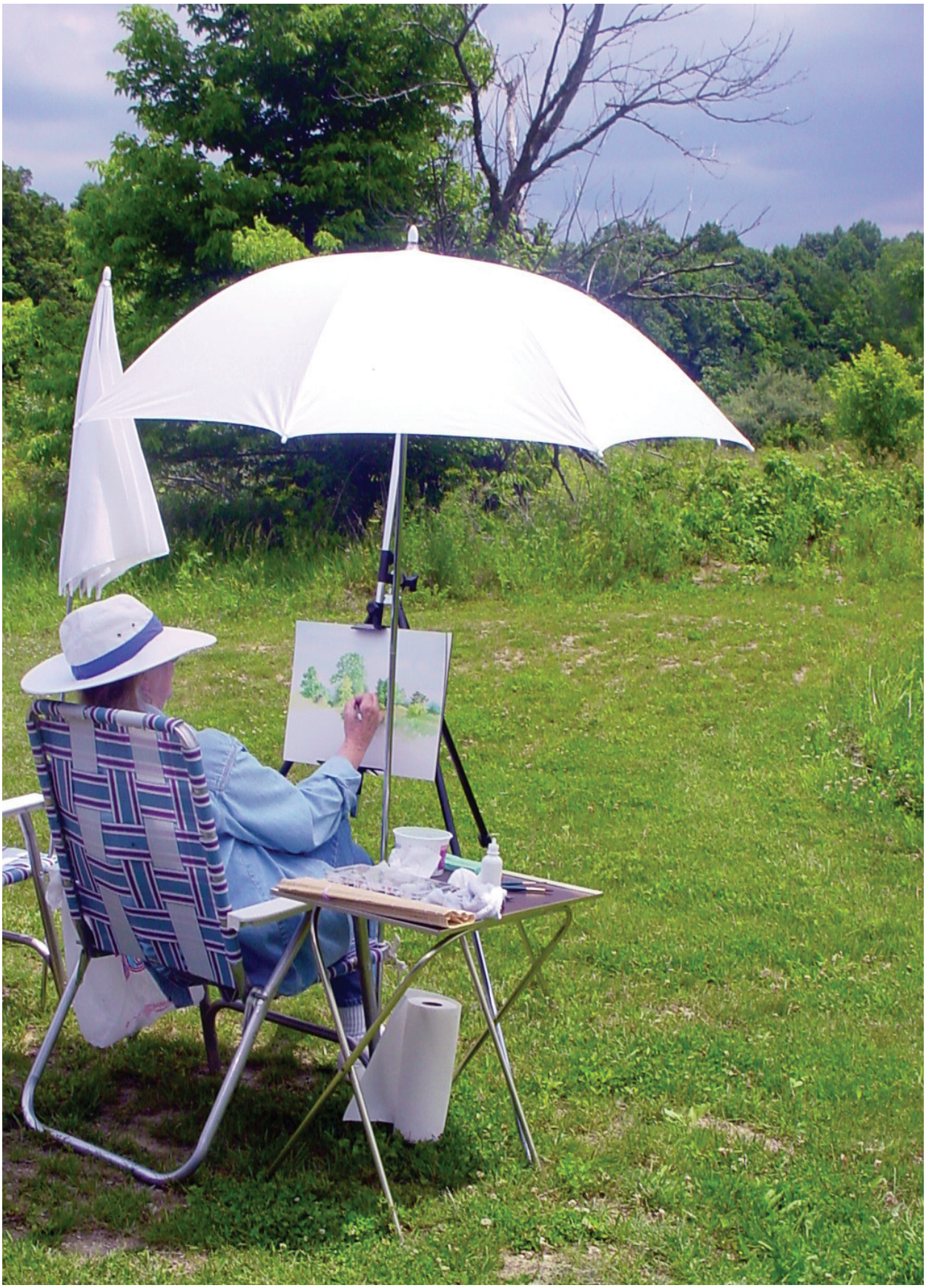
More than just physical access

Universal design covers much more than removing physical barriers to access. For example, we could consider UD in a nature center on a park property. All displays would be built to seen from any height, from that of seated in a child's size wheelchair, to the perspective of someone more than 7 feet tall. Displays in this center could include tactile items that could be held and "seen" with the hands, smelled, and heard. Audio versions of interpretive information would be built into each display. Signs in the building could be mostly characters or icons with a Braille strip attached, such as the familiar, commonly used male/female restroom logo. Providing character-based signs offers multiple benefits, including removing language barriers and accommodating people who have visual-impairments or a developmental disability.

More than people with disabilities

UD principles meet the needs of most any person with a temporary or permanent limitation. An automatic door can assist someone carrying a big bag of groceries, someone on crutches or a pregnant woman. A non-English-speaking park visitor can find a restroom or a telephone more easily if character-based signs are used. It is simpler and more efficient to have automatic sensors on bathroom faucets instead of handles, which can be hard to operate; spread germs; and can break, leak, or be left on.



More than just access for people with disabilities

Using UD as a design requirement for new or remodeled facilities can do more than provide everyone better access to a recreation site.

It can save money.

Using UD principles can save:

- Water - with automatic devices like faucets and toilets
- Heating costs - with automatic doors that open and close quickly when clear
- Electricity - with automatic light switches or timers
- Construction costs - by designing in accessibility instead of retrofitting
- Construction costs - by eliminating duplicate features, such as installing both regular doors and a switch-operated door

UD offers a chance for recreation professionals to reach out to the growing number of older Americans, regardless of ability level. UD also offers opportunities to attract other users that may be underserved, such as:

- Residents who speak English as a second language
- Tourists/visitors who may not speak English
- People with disabilities (permanent or temporary)
- People with limited range of motion or poor balance
- Small children and the people who care for them
- The elderly and those who care for them
- Pregnant women
- People with chronic or debilitating illnesses or conditions

Universal Design Examples in Indiana

There are many UD examples in Indiana. The Indiana State Museum, for instance, has begun integrating these principles in all of its new displays, exhibits and facility renovations. The entryways are designed and automated so all visitors can enter with ease, without barriers. The Indianapolis International Airport terminal features restrooms with doorless entries that double-back to create a "modesty wall" and provide fully accessible entry. Many commercial buildings are now being constructed with UD in mind; when was the last time you pulled open a door at a grocery store?

A quality example of park design that goes above and beyond ADA guidelines is the Pisgah Marsh Boardwalk. This three-10ths-of-a-mile long boardwalk is ADA accessible, as are the parking lot and restrooms. The facility also includes an observation deck that uses cables instead of boards so children and people in wheelchairs have an unobstructed view of the nearby marsh. Interpretive signs and an educational kit that is provided to teachers and other groups further enhance the outdoor experience.

UD is a way to be considerate of many types of park users.

A Note on Universal Design from the INDNR-OR Staff

The UD section of this SCORP serves as a suggestion for future design of park construction or rehabilitation. ADA compliance is required; UD is not. Please consider UD to enhance ADA compliance as a best management practice, and design parks accordingly.